

## EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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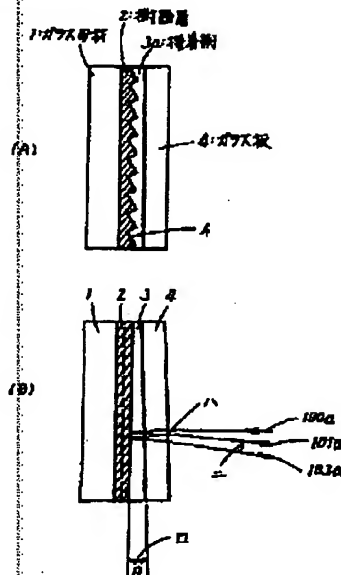
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APPLICANT : YOKOGAWA ELECTRIC CORP.

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TITLE : DIFFRACTION GRATING



**ABSTRACT :** PROBLEM TO BE SOLVED: To prevent stray light from being made incident on a photodetector and to eliminate the influence of the stray light caused by the reflection of a glass plate by inclining and sticking the glass plate at a fixed angle to a direction perpendicular to a diffraction direction.

**SOLUTION:** A resin layer 2 is formed on glass base material 1 and further grooves (a) are plurally formed in parallel with each other on the resin layer 2. The glass plate 4 is stuck to the surface side of the layer 2 through adhesive 3a. The plate 4 is kept parallel in terms of attaching accuracy to the layer 2 with respect to the direction (diffraction direction) orthogonally crossed with the grooves (a) and stuck to be somewhat inclined (b) by the fixed angle  $\theta$  with respect to the direction along the groove (a) (direction perpendicular to the diffraction direction). Thus, the stray light 103a is emitted with a fixed angle difference not only in the diffraction direction of the diffraction grating to 1st order diffracted light 101a but also in the direction perpendicular to the diffraction direction. As a result, the stray light 103a is prevented from being made incident on the photodetector and the influence of the stray light caused by the reflection of the plate 4 is eliminated.

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